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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/706,926

Applicant(s)

JOSHI, RAJASHRI

Examiner

MIRANDA LE

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 4 and 6-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-4, 6-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/89)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This communication is responsive to Amendment, filed 02/01/2005.

Claims 1, 3-4, 6-27 are pending in this application. Claims 1, 8, 11, 13, 16, 20, 24 are independent claims. In this Amendment, claims 1, 8, 11, 13, 16, 20, 24 have been amended. This action is made Final.

2. The rejection of claims 1-7, 13-15, 16-19 under 35 U.S.C. §101 has been withdrawn in view of the amendment.

3. The rejection of claims 1-7, 13-15, 16-19 under 35 U.S.C. §112 second paragraph has been withdrawn in view of the amendment.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 3, 4, 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eppler et al. (US Patent No. 6,084,989), in view of Donoho et al. (US Patent No. 6,766,062), and further in view of Moon et al. "An investigation into the Applicability of the Wavelet Transform to Digital Stereo Image Matching" (hereinafter "Moon").

As per claim 1, Eppler teaches a method for representing cartographic data in a computer-based system, comprising:

providing a cartographic database (*i.e. landmark database 27, col. 4, lines 36-50*) containing data that represents a plurality of geographic features (*i.e., latitude, longitude, and height, col. 4, lines 36-50*);

storing the coefficients in a computer-usable database (*i.e. databases 28, col. 16, lines 46-61*) on a physical storage medium, the coefficients being usable for displaying a representation of the geographic feature in the computer-based system (*i.e. The digitized image generated from softcopy map databases 28 is viewed (step 42) on a display and a landmark in the digitized image is selected (step 43) for processing, col. 16, lines 46-61*).

Eppler does not specifically teach:

wavelet coefficients;

indexing the wavelet coefficients by a plurality of display scales.

Donoho teaches:

wavelet coefficients (*i.e. Wavelet coefficients, Summary*);

indexing the wavelet coefficients by a plurality of display scales (*i.e. The variables j and k refer to the scale and location, ... Wavelet transforms, col. 10, lines 51-63*).

It would have been obvious to one of ordinary skill of the art having the teaching of Eppler and Donoho at the time the invention was made to modify the system of Eppler to include the limitations as taught by Donoho. One of ordinary skill in the art would be motivated to make this combination in order to have an image represented more efficiently so as the image can be stored using less memory and can be more quickly transmitted over a data or computer network or over a transmission link, etc. in less time or transmitted using less bandwidth, as doing so would give the added benefit of providing a technique to efficiently represent data while allowing a more accurate reconstructed image, particularly along lines in the image, as taught by Donoho (*Summary*).

Eppler, Donoho do not fairly teach:

computing a plurality of wavelet coefficients from said data that represents one of said geographic features in the cartographic database, wherein said data that represents the geographic feature is a plurality of data points indicating locations, wherein said wavelet coefficients obtained with a wavelet, wherein said wavelet being one of a family of function

$$\psi_{ab}(x) = |a|^{-1/2} \psi\left(\frac{x-b}{a}\right)$$

having the form $\psi_{ab}(x)$, wherein $\psi_{ab}(x)$ is called a mother wavelet,

a is called a dilation parameter, b is called a translation parameter, and x is an independent variable, wherein said computing the wavelet coefficients includes applying a wavelet transform to a function defined by the data points representing the geographic feature

Moon teaches:

wavelet coefficients (*i.e. The Wavelet Transform, page 76*);

computing a plurality of wavelet coefficients from said data that represents one of said geographic features in the cartographic database, wherein said data that represents the geographic feature is a plurality of data points indicating locations, wherein said wavelet coefficients obtained with a wavelet, wherein said wavelet being one of a family of function

$$\psi_{ab}(x) = |a|^{-1/2} \psi\left(\frac{x-b}{a}\right)$$

having the form $\psi_{ab}(x)$, wherein $\psi_{ab}(x)$ is called a mother wavelet, a is called a dilation parameter, b is called a translation parameter, and x is an independent variable, wherein said computing the wavelet coefficients includes applying a wavelet transform to a function defined by the data points representing the geographic feature (*see page 76, The Wavelet Transform, equation (2)*).

It would have been obvious to one of ordinary skill of the art having the teaching of Eppler, Donoho and Moon at the time the invention was made to modify the system of Eppler to include the limitations as taught by Donoho and Moon. One of ordinary skill in the art would be motivated to make this combination in order to produce a representation which is intermediate between a spatial and a frequency representation in view of Moon, as doing so would give the added benefit of a representation being able to be viewed as a multi-resolution decomposition technique as taught by Moon (*See Introduction, page 75*).

As per claim 3, Eppler teaches the method of claim 1, wherein the data points are selected from the group consisting of coordinate pairs and a coordinate triples (*i.e., latitude, longitude, and height, col. 4, lines 36-50*).

As per claim 4, Eppler teaches the method of claim 1, wherein the geographic feature is the boundary of a feature selected from the group consisting of a road, waterway, building, park, lake, railroad track, and airport (*i.e. The system and method use landmarks in symbolic form, and in particular, perimeters of lakes and islands, derived from precise cartographic source materials, col. 2, lines 6-12*).

As per claim 6, Eppler teaches the method of claim 1, wherein the step of computing the wavelet coefficients includes:

computing the wavelet coefficients by performing a least-squares fit (*i.e. The orbit and attitude determination (OAD) solution is obtained by a least-squares fit of landmarks measured on previous images frames, col. 5, line 65 to col. 6, line 22*).

Moon teaches wavelet coefficients (*i.e. The Wavelet Transform, page 76*).

As per claim 7, Donoho teaches the method of claim 1, wherein the wavelet coefficients are computed using a semi-discrete orthonormal wavelet transform (*i.e. an orthonormal Wavelet transform, col. 9, line 66 to col. 10, line 9*).

6. Claims 8-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eppler et al. (US Patent No. 6,084,989), in view of Moon et al. "An investigation into the Applicability of the Wavelet Transform to Digital Stereo Image Matching" (hereinafter "Moon").

As per claim 8, Eppler teaches a method of displaying on a computer output device a representation of a geographic feature, comprising:

retrieving from a computer-usable database (*i.e. databases 28, col. 16, lines 46-61*) a plurality of coefficients associated with the geographic feature (*i.e., latitude, longitude, and height, col. 4, lines 36-50*);

computing a function that represents the geographic feature using the retrieved coefficients (*i.e. The digitized image generated from softcopy map databases 28 is viewed (step 42) on a display and a landmark in the digitized image is selected (step 43) for processing, col. 16, lines 46-61*); and

using the function to display the representation of the geographic feature on the computer output device (*i.e. The digitized image generated from softcopy map databases 28 is viewed (step 42) on a display and a landmark in the digitized image is selected (step 43) for processing, col. 16, lines 46-61*).

Eppler does not specifically teach:

wavelet coefficients;

wherein a wavelet being one of a family of functions having a form ..., a is called a dilation parameter, b is called a translation parameter, and x is an independent variable, the coefficients being derived from a plurality of data points specifying geographic locations according to a predetermined reference system by applying a wavelet transform to a function defined by the data points.

Moon teaches:

wavelet coefficients (*i.e. The Wavelet Transform, page 76*);

wherein said wavelet being one of a family of function having the form

$$\psi_{ab}(x) = |a|^{-1/2} \psi\left(\frac{x-b}{a}\right), \text{ wherein } \psi_{ab}(x) \text{ is called a mother wavelet, } a \text{ is called a}$$

dilation parameter, b is called a translation parameter, and x is an independent variable, wherein said computing the wavelet coefficients includes applying a wavelet transform to a function defined by the data points representing the geographic feature (*see page 76, The Wavelet Transform, equation (2)*).

It would have been obvious to one of ordinary skill of the art having the teaching of Eppler, Donoho and Moon at the time the invention was made to modify the system of Eppler to include the limitations as taught by Donoho and Moon. One of ordinary skill in the art would be motivated to make this combination in order to produce a representation which is intermediate between a spatial and a frequency representation in view of Moon, as doing so would give the added benefit of a representation being able to be viewed as a multi-resolution decomposition technique as taught by Moon (*See Introduction, page 75*).

As per claim 11, Eppler teaches a system for displaying on a computer output device a representation of a geographic feature, comprising:

a database (*i.e. databases 28, col. 16, lines 46-61*) storing a plurality of wavelet coefficients associated with the geographic feature;

wherein the coefficients are associated with a plurality of display scales (*i.e. a scale of 1:1,000,000; 1:250,000 scale, col. 15, line 48 to col. 16, line 8*);

a processor configured to calculate the representation of the geographic feature at a predetermined display scale using the coefficients associated with the predetermined display scale (*i.e. The digitized image generated from softcopy map databases 28 is viewed (step 42) on a display and a landmark in the digitized image is selected (step 43) for processing, col. 16, lines 46-61*); and

a display device for displaying the representation of the geographic feature (*i.e. The digitized image generated from softcopy map databases 28 is viewed (step 42) on a display and a landmark in the digitized image is selected (step 43) for processing, col. 16, lines 46-61*).

Eppler does not fairly teach:

wavelet coefficients;

wherein a wavelet being one of a family of function having a form ... , a is called a dilation parameter, b is called a translation parameter, and x is an independent variable, the wavelet coefficients being derived from a plurality of data points specifying geographic locations according to predetermined reference system by applying a wavelet transform to a function defined by the data points.

Moon teaches:

wavelet coefficients (*i.e. The Wavelet Transform, page 76*);

wherein said wavelet being one of a family of function having the form

$$\psi_{ab}(x) = |a|^{-1/2} \psi\left(\frac{x-b}{a}\right), \text{ wherein } \psi_{ab}(x) \text{ is called a mother wavelet, } a \text{ is called a}$$

dilation parameter, b is called a translation parameter, and x is an independent variable, wherein said computing the wavelet coefficients includes applying a wavelet transform to a function

defined by the data points representing the geographic feature (*see page 76, The Wavelet Transform, equation (2)*).

It would have been obvious to one of ordinary skill in the art having the teaching of Eppler, Donoho and Moon at the time the invention was made to modify the system of Eppler to include the limitations as taught by Donoho and Moon. One of ordinary skill in the art would be motivated to make this combination in order to produce a representation which is intermediate between a spatial and a frequency representation in view of Moon, as doing so would give the added benefit of a representation being able to be viewed as a multi-resolution decomposition technique as taught by Moon (*See Introduction, page 75*).

As per claim 13, Eppler teaches a method of generating a computer-usable database that represents cartographic data, comprising:

providing a predetermined database (*i.e. landmark database 27, col. 4, lines 36-50*) containing data indicating a plurality of data points specifying geographic locations (*i.e., latitude, longitude, and height, col. 4, lines 36-50*);

storing the coefficients in a computer-usable database (*i.e. databases 28, col. 16, lines 46-61*) on a physical storage medium (*i.e. The digitized image generated from softcopy map databases 28 is viewed (step 42) on a display and a landmark in the digitized image is selected (step 43) for processing, col. 16, lines 46-61*).

Eppler does not specifically teach:
wavelet coefficients;

computing a plurality of wavelet coefficients from the data points by applying a wavelet transform to a function defined by the data points, wherein a wavelet being one of a family of functions having a form \dots , a is called a dilation parameter, b is called a translation parameter, and x is an independent variable, wherein said wavelet coefficients are used to represent the cartographic data.

Moon teaches:

wavelet coefficients (*i.e. The Wavelet Transform, page 76*);

computing a plurality of wavelet coefficients from the data points by applying a wavelet transform to a function defined by the data points, wherein said wavelet being one of a family of

$$\psi_{ab}(x) = |a|^{-1/2} \psi\left(\frac{x-b}{a}\right)$$

function having the form $\psi_{ab}(x)$, wherein $\psi_{ab}(x)$ is called a mother wavelet, a is called a dilation parameter, b is called a translation parameter, and x is an independent variable, wherein said computing the wavelet coefficients includes applying a wavelet transform to a function defined by the data points representing the geographic feature (*see page 76, The Wavelet Transform, equation (2)*).

It would have been obvious to one of ordinary skill of the art having the teaching of Eppler, Donoho and Moon at the time the invention was made to modify the system of Eppler to include the limitations as taught by Donoho and Moon. One of ordinary skill in the art would be motivated to make this combination in order to produce a representation which is intermediate between a spatial and a frequency representation in view of Moon, as doing so would give the added benefit of a representation being able to be viewed as a multi-resolution decomposition technique as taught by Moon (*See Introduction, page 75*).

As per claim 16, Eppler teaches a system of generating a computer-usable database that represents cartographic data, comprising:

a first computer-usable database (*i.e. landmark database 27, col. 4, lines 36-50*) storing data that represents a plurality of geographic features, said data that represents one of said geographic features comprises a plurality of data points specifying geographic locations (*i.e., latitude, longitude, and height, col. 4, lines 36-50*);

a second computer-usable database (*i.e. databases 28, col. 16, lines 46-61*) on a physical storage medium, operatively coupled to the processor, for storing the coefficients (*i.e. The digitized image generated from softcopy map databases 28 is viewed (step 42) on a display and a landmark in the digitized image is selected (step 43) for processing, col. 16, lines 46-61*).

Eppler does not fairly teach:

wavelet coefficients;

a processor configured to compute a plurality of wavelet coefficients from the data points specifying geographic locations by applying a wavelet transform to a function defined by the data points, wherein said wavelet coefficients provide a representation of said geographic feature, wherein a wavelet being one of a family of functions having a form ..., a is called a dilation parameter, b is called a translation parameter, and x is an independent variable.

Moon teaches:

wavelet coefficients (*i.e. The Wavelet Transform, page 76*);

a processor configured to compute a plurality of wavelet coefficients from the data points specifying geographic locations by applying a wavelet transform to a function defined by the data points, wherein said wavelet being one of a family of function having the form

$$\psi_{ab}(x) = |a|^{-1/2} \psi\left(\frac{x-b}{a}\right), \text{ wherein } \psi_{ab}(x) \text{ is called a mother wavelet, } a \text{ is called a}$$

dilation parameter, b is called a translation parameter, and x is an independent variable, wherein said computing the wavelet coefficients includes applying a wavelet transform to a function defined by the data points representing the geographic feature (*see page 76, The Wavelet Transform, equation (2)*).

It would have been obvious to one of ordinary skill of the art having the teaching of Eppler, Donoho and Moon at the time the invention was made to modify the system of Eppler to include the limitations as taught by Donoho and Moon. One of ordinary skill in the art would be motivated to make this combination in order to produce a representation which is intermediate between a spatial and a frequency representation in view of Moon, as doing so would give the added benefit of a representation being able to be viewed as a multi-resolution decomposition technique as taught by Moon (*See Introduction, page 75*).

As per claim 20, Eppler teaches a method for generating a database error metric in a computer-based system, comprising:

computing a first plurality of coefficients from a plurality of first data points included in a first cartographic database (*i.e. landmark database 27, col. 4, lines 36-50*) by applying a transform to a first function defined by the first data points, wherein said coefficients represent geographic features (*i.e., latitude, longitude, and height, col. 4, lines 36-50*);

computing a second plurality of coefficients from a plurality of second data points included in a second cartographic database (*i.e. The digitized image generated from softcopy*

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map databases 28 is viewed (step 42) on a display and a landmark in the digitized image is selected (step 43) for processing, col. 16, lines 46-61);

generating the database error metric (*i.e. offset errors, col. 2, lines 39-49*) based on a transform involving the first and second pluralities of coefficients, wherein said database error metric provides a measurement comparing said first cartographic database and said second cartographic database (*i.e. Using the image enhancement algorithm, the computed likelihood ratios along with the landmark mask are processed by the matching algorithms to generate the offset errors and match figure of merit, col. 2, lines 39-49*).

Eppler does not specifically teach:

wavelet coefficients;

applying a wavelet transform to a second function defined by the second data points, wherein said wavelet coefficients represent geographic features, wherein a wavelet being one of a family of functions having a form ..., a is called a dilation parameter, b is called a translation parameter, and x is an independent variable.

Moon teaches:

wavelet coefficients (*i.e. The Wavelet Transform, page 76*);

applying a wavelet transform to a second function defined by the second data points, wherein said wavelet being one of a family of function having the form

$$\psi_{ab}(x) = |a|^{-1/2} \psi\left(\frac{x-b}{a}\right), \text{ wherein } \psi_{ab}(x) \text{ is called a mother wavelet, } a \text{ is called a}$$

dilation parameter, b is called a translation parameter, and x is an independent variable, wherein said computing the wavelet coefficients includes applying a wavelet transform to a function

defined by the data points representing the geographic feature (*see page 76, The Wavelet Transform, equation (2)*).

It would have been obvious to one of ordinary skill in the art having the teaching of Eppler, Donoho and Moon at the time the invention was made to modify the system of Eppler to include the limitations as taught by Donoho and Moon. One of ordinary skill in the art would be motivated to make this combination in order to produce a representation which is intermediate between a spatial and a frequency representation in view of Moon, as doing so would give the added benefit of a representation being able to be viewed as a multi-resolution decomposition technique as taught by Moon (*See Introduction, page 75*).

As per claim 24, Eppler teaches a system for generating a database error metric, comprising:

a first cartographic database (*i.e. landmark database 27, col. 4, lines 36-50*) for storing a first plurality of data points (*i.e., latitude, longitude, and height, col. 4, lines 36-50*);

a second cartographic database (*i.e. softcopy map databases 28, col. 16, lines 46-61*) for storing a second plurality of data points (*i.e., The digitized image generated from softcopy map databases 28 is viewed (step 42) on a display and a landmark in the digitized image is selected (step 43) for processing, col. 16, lines 46-61*); and

a processor, operatively coupled to the first and second cartographic databases, configured to compute a first plurality of coefficients and a second plurality of coefficients, respectively, from the first and second pluralities of data points (*i.e. The digitized image*

generated from softcopy map databases 28 is viewed (step 42) on a display and a landmark in the digitized image is selected (step 43) for processing, col. 16, lines 46-61).

generating a database error metric (i.e. offset errors, col. 2, lines 39-49) based on the first and second pluralities of coefficients, wherein said database error metric provides a measurement comparing said first cartographic database and said second cartographic database (i.e. Using the image enhancement algorithm, the computed likelihood ratios along with the landmark mask are processed by the matching algorithms to generate the offset errors and match figure of merit, col. 2, lines 39-49).

Eppler does not specifically teach:

wavelet coefficients;

applying a wavelet transform to a first function defined by the first data points and to a second function defined by the second data points, wherein said wavelet coefficients represent geographic features, wherein a wavelet being one of a family of functions having a form ..., wherein .. is called a mother wavelet, a is called a dilation parameter, b is called a translation parameter, and x is an independent variable, the processor.

Moon teaches:

wavelet coefficients (i.e. *The Wavelet Transform*, page 76);

applying a wavelet transform to a first function defined by the first data points and to a second function defined by the second data points, wherein said wavelet being one of a family of

$$\psi_{ab}(x) = |a|^{-1/2} \psi\left(\frac{x-b}{a}\right)$$

function having the form , wherein $\psi_{ab}(x)$ is called a mother wavelet, a is called a dilation parameter, b is called a translation parameter, and x is an

independent variable, wherein said computing the wavelet coefficients includes applying a wavelet transform to a function defined by the data points representing the geographic feature (see page 76, *The Wavelet Transform*, equation (2)).

It would have been obvious to one of ordinary skill of the art having the teaching of Eppler, Donoho and Moon at the time the invention was made to modify the system of Eppler to include the limitations as taught by Donoho and Moon. One of ordinary skill in the art would be motivated to make this combination in order to produce a representation which is intermediate between a spatial and a frequency representation in view of Moon, as doing so would give the added benefit of a representation being able to be viewed as a multi-resolution decomposition technique as taught by Moon (*See Introduction*, page 75).

As per claim 9, Eppler teaches the method of claim 8, further comprising:

performing a zooming operation to display another representation of said geographic feature at a different scale (*i.e. a scale of 1:1,000,000; 1:250,000 scale, col. 15, line 48 to col. 16, line 8*).

As per claim 10, Eppler teaches the method of claim 8, wherein the geographic feature is selected from the group consisting of a road, waterway, building, park, lake, railroad track, and airport (*i.e. The system and method use landmarks in symbolic form, and in particular, perimeters of lakes and islands, derived from precise cartographic source materials, col. 2, lines 6-12*).

As per claim 12, Eppler teaches the system of claim 11, wherein the data points are selected from a group consisting of coordinate pairs and coordinate triples (*i.e.*, *latitude, longitude, and height, col. 4, lines 36-50*).

As per claim 14, Eppler teaches the method of claim 13, wherein the data points are selected from the group consisting of coordinate pairs and coordinate triples (*i.e.*, *latitude, longitude, and height, col. 4, lines 36-50*).

As per claim 15, Eppler teaches the method of claim 13, wherein the geographic feature is the boundary of a feature selected from the group consisting of a road, waterway, building, park, lake, railroad track and airport (*i.e. The system and method use landmarks in symbolic form, and in particular, perimeters of lakes and islands, derived from precise cartographic source materials, col. 2, lines 6-12*).

As per claim 17, Eppler teaches the system of claim 16, wherein the data points are selected from the group consisting of coordinate triples and coordinate pairs (*i.e.*, *latitude, longitude, and height, col. 4, lines 36-50*).

As per claim 18, Moon teaches the system of claim 16, wherein the wavelet coefficients are computed by applying a wavelet transform to a function defined by the data points representing a geographic feature (*i.e. The Wavelet Transform, page 76*).

As per claim 19, Eppler teaches the system of claim 16, wherein the coefficients are computed by performing a least-squares fit (*i.e. The orbit and attitude determination (OAD) solution is obtained by a least-squares fit of landmarks measured on previous images frames, col. 5, line 65 to col. 6, line 22*).

Moon teaches wavelet coefficients (*i.e. The Wavelet Transform, page 76*).

As per claim 21, Eppler teaches the method of claim 20, wherein the error metric is a total error metric based on a plurality of scales (*i.e. all offsets, col. 4, lines 43-59*).

Moon teaches wavelet scales (*i.e. The Wavelet Transform, page 76*).

As per claim 22, Eppler teaches the method of claim 20, further comprising:
selecting a scale (*i.e. for each offset ... having gray-scale value G, col. 9, lines 44-51*);
restricting the error computation to the selected scale to generate a layer error metric (*i.e. for each offset ... having gray-scale value G, col. 9, lines 44-51*).

Moon teaches wavelet scales (*i.e. The Wavelet Transform, page 76*).

As per claim 23, Eppler teaches the method of claim 20, wherein the data points are selected from the group consisting of coordinate pairs and coordinate triples (*i.e., latitude, longitude, and height, col. 4, lines 36-50*).

As per claim 25, the system of claim 24, wherein the error metric is a total error metric based on a plurality of scales (*i.e. all offsets, col. 4, lines 43-59*).

Moon teaches wavelet scales (*i.e. The Wavelet Transform, page 76*).

As per claim 26, Eppler teaches the system of claim 24, wherein the processor is configured to restrict the error computation to a selected scale to generate a layer error metric (*i.e. for each offset ... having gray-scale value G, col. 9, lines 44-51*).

Moon teaches wavelet scales (*i.e. The Wavelet Transform, page 76*).

As per claim 27, Eppler teaches the system of claim 24, wherein the data points are selected from the group consisting of coordinate triples and coordinate pairs (*i.e., latitude, longitude, and height, col. 4, lines 36-50*).

Response to Arguments

7. With respect to claims 1, 3, 4, 6-27, Applicants have amended the independent claims 1, 8, 11, 13, 16, 20, 24 to recite “wherein said computing the wavelet coefficients includes applying a wavelet transform to a function defined by the data points representing the geographic feature”; however, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham, can be reached on (571) 272-7079. The fax number to this Art Unit is (571)-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Miranda Le/
Primary Examiner, Art Unit 2167